

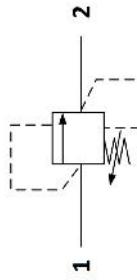
Relief Valves

RVC0.S10 Valve Series

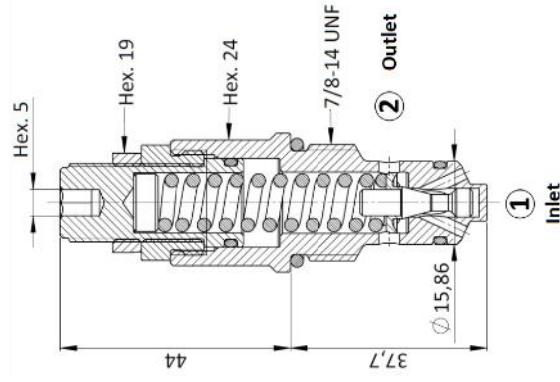
- SAE10 Cartridge - 350 bar
- Direct acting - Poppet type



Symbol



Cross Section



• Description

A screw-in, cartridge style, direct acting, poppet type, normally closed hydraulic relief valve. It's typically used to protect hydraulic components from pressure transients. When the pressure at the Inlet (1) reaches the valve setting, the valve starts to open to tank (2), throttling flow to minimize the pressure rise. The innovative geometry of the deflector provides in fact a very low rise rate, and the poppet design guarantees great stability. The cartridge offers quick response to load changes in hydraulic circuits requiring low internal leakage as well as limited hysteresis. NOTE: the RVCO in the standard configuration can be used in crossover relief applications.

• Technical Data

| | | |
|--------|---|---|
| Symbol | Maximum operating pressure | 350 bar |
| | Maximum flow | 50 l/min |
| | Setting Pressure | Sig. table below |
| | Maximum internal leakage | 0.25 ml/min to 50% of nominal set point |
| | External component treatment | Zr/Fc standard (96%) |
| | O-ring Temperature Range | -30°C to 110°C (silicone sealing NBR; Buna-N) |
| | Oil Temperature Range | -20°C to 110°C |
| | Pressure settings established | Gas l/min |
| | | nominal 100% of cracking pressure |
| | Fluids | Mineral - based or synthetic oils with lubricating properties |
| | Viscosities | 7 cSt to 220 cSt |
| | Filtration | 20/8/15 ISO 4406 (maximum filtration admitted) |
| | Orientation | No restrictions |
| | Installation torque | 55-55 Nm (Hex. 19) |
| | Tightening torque nut | 25-30 Nm (Hex. 19) |
| | Technical specifications for characterization | See page 480 |
| | Oil testing condition | ISO VG 46 cSt |
| | Seal kit code | SK.301 |
| | Plastic tamper proof cap | GTP001 (for more details see page 23-29) |
| | Weight | 0.170 kg |

• Ordering Code

| | | | | | | | | | | | |
|----------|----------|----------|----------|---|----------|----------|----------|---|----------|----------|---|
| R | V | C | 0 | • | S | 1 | 0 | • | 0 | * | • |
| R | V | C | 0 | • | S | 1 | 0 | • | 0 | * | • |

* 210

-1-6-5-

Pressure setting in [bar]

000 = No specific setting required

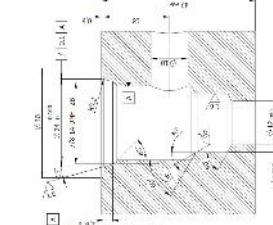
| Spring range | Pressure setting range (bar) | Pressure increment per turn (bar) |
|--------------|------------------------------|-----------------------------------|
| Y | 15-60 | 8 |
| N | 25-135 | 20 |
| B | 50-220 | 33 |
| G | 120-350 | 58 |

210

Eingestellt auf 1465-bar bei 1 l/min

Cavity Details

SAE10



• Technical Features

All external surfaces are zinc plated and corrosion-proof. All valve parts are made of high strength steel. Poppet is hardened and ground to guarantee minimal wear and to extend service life. Adjustment screw cannot be backed out of the valve. Positive stop prevents springs from going solid. Industry common cavity 350 bar (5000 psi). Industry common cavity.

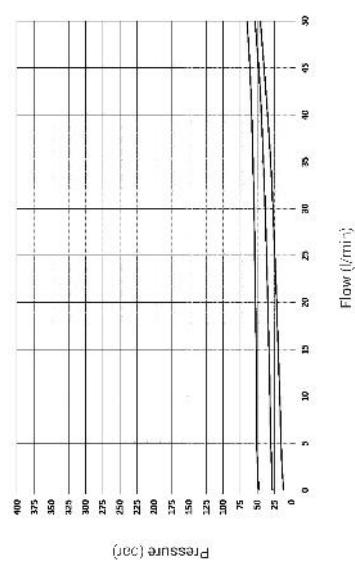
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• Springs' Graphs → Note: The performance chart illustrates T_{CV} handling capacity for each spring bias option. p/Q curves are recorded at $TQ = 40^\circ\text{C}$ and 45°C

- Spring = Y (15 - 60bar)

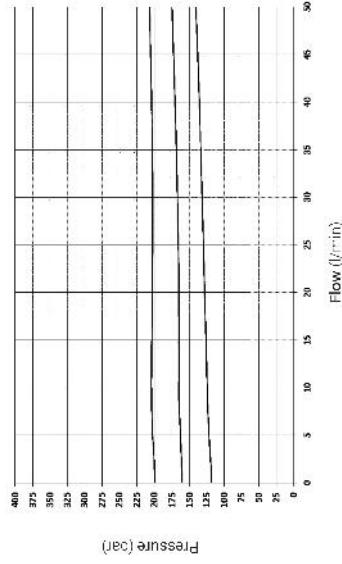
p/Q performance



①

- Spring = B (50 - 220bar)

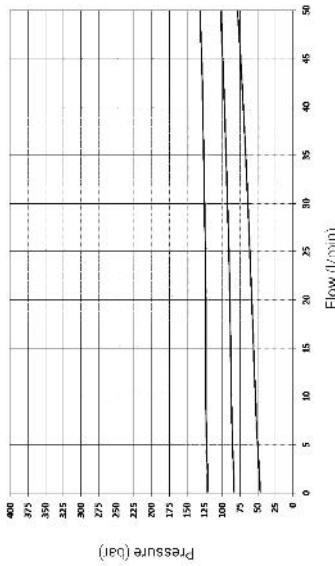
p/Q performance



③

- Spring = N (25 - 135bar)

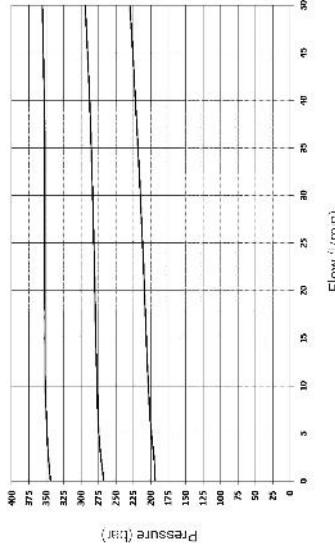
p/Q performance



②

- Spring = G (120 - 350bar)

p/Q performance



④